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APPLICANT : ADVANCED DISPLAY:KK;

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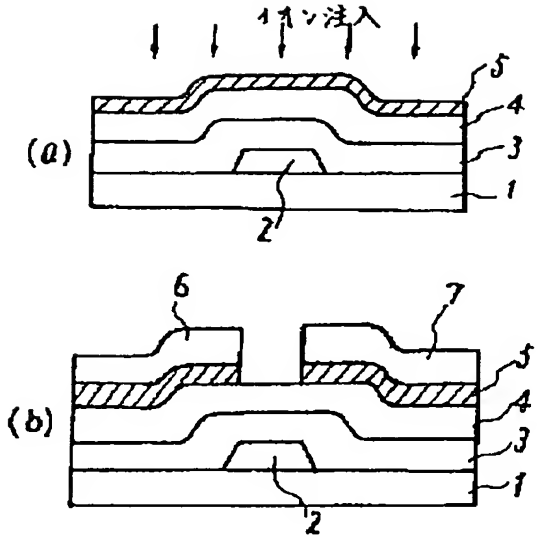
TITLE : METHOD OF MANUFACTURING THIN FILM TRANSISTOR AND ELECTRO-OPTIC DISPLAY UNIT FORMED BY THIS METHOD



ABSTRACT : PROBLEM TO BE SOLVED: To avoid the contamination by impurities such as phosphorus etc., while reducing the load of a plasma CVD device at low operation rate and high cost to increase the processing capacity for cutting down the manufacturing cost.

SOLUTION: A gate electrode 2 is pattern-formed on a glass substrate 1 so as to continuously form a gate insulating film 3 and an undoped amorphous silicon 4 by CVD process on the gate electrode 2. Next, an n type amorphous silicon 5 is formed on the whole substrate surface near the surface of this undoped amorphous silicon 4 by ion implanting process in an ion implanting device. At this time, the accelerating voltage is set up to be at 10keV So that the lower part of the undoped amorphous silicon 4 may not be affected by the ion implantation. Besides, the impurity concentration of the n type amorphous silicon 5 is specified not to exceed 1×10^{18} ($atoms/cm^3$) in the region exceeding 50nm distant in the depth direction from the surface.